



UNITED STATES PATENT AND TRADEMARK OFFICE

cen

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,265	07/11/2003	Ronny Skauen	BPA-116	3941
20028	7590	04/17/2007		
Lipsitz & McAllister, LLC 755 MAIN STREET MONROE, CT 06468			EXAMINER HOANG, ANN THI	
			ART UNIT 2836	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	
3 MONTHS			04/17/2007	
			DELIVERY MODE PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/618,265	SKAUEN, RONNY	
	Examiner	Art Unit	
	Ann T. Hoang,	2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 December 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/8/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fadeley et al. (US 6,234,100) in view of Ratzel et al. (US 4,477,753), and Tyler et al. (US 4,027,202).

Regarding claim 23, Fadeley et al. discloses a boat thruster control system for controlling an electric thruster motor for a thruster (16), said motor connected via a switch (92) to a supply voltage source (12 VDC), said thruster control system comprising:

a manually operated control means (20) for commanding the motor to drive the thruster (16) to selectively move the boat (10) in a port direction or a starboard direction;

said manually operated control means (20) providing one of a first control signal or a second control signal respectively representing one of said port direction or said starboard direction;

said first and said control signals controlling said switch (92) for actuating first and second contactors (94, 96) for making said motor run in a first or second direction respectively.

See Figs. 1A and 4, 4:50-57, and 8:14-23. The reference does not specify that switch (92) is an operating relay having first and second relay windings for actuating first and second relay contacts. The reference also does not disclose a safety control device as claimed.

However, Ratzel et al. discloses safety control device having a motor (14) connected via an operating relay to a supply voltage source (17), said operating relay having first and second relay windings (15, 16) for actuating first and second relay contacts (18, 19) for making said motor (14) run in a first or second direction, respectively. See figure. It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the switch of Fadeley et al. with the operating relay of Ratzel et al. in order to provide simple and effective control means for running the motor in each direction via separate control signals for each direction, and since running motors via operating relays is well known and expedient in the art.

Furthermore, Tyler et al. discloses a first monitoring device (292) for monitoring a supply voltage from a supply voltage source for a motor (10); and

a safety control device (86) adapted for delaying a re-excitation of said motor (10) after a break if said monitored voltage from said first monitoring device is too low.

See abstract, Figs. 1 and 2B, 1:42-61, 7:48-51, and 9:48-62. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the first monitoring device and safety control device of Tyler et al. into the boat thruster control system of Fadeley et al. in view of Ratzel et al. in order to provide a safety control device for a boat thruster control system that prevents start-up of the motor too

Art Unit: 2836

soon after shut-down, thereby protecting the motor. The combination would avoid chattering and burning of the relay contacts by preventing start-up of the motor when said monitored voltage was too low to maintain said relay in a stable pick-up state.

Additionally, Ratzel et al. also discloses one or more second monitoring devices for monitoring a state of said first and second relay contacts (18, 19); and

a safety control device (34) adapted for comparing control signals (10, 11) to the operating relay with signals from said one or more second monitoring devices to determine whether one of said first or second relay contacts (18, 19) is erroneously activated to run the motor (14) in either said first or second direction, and, if one of said first or second relay contacts (18, 19) is erroneously activated, actuating the other of said erroneously activated first or second relay contacts (18, 19) to supply the same voltage level to both terminals of the motor (14), thereby interrupting the current to the motor (14).

See abstract, figure, 1:48-55, 3:41-60, and 4:5-26. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the one or more second monitoring devices and safety control device of Ratzel et al. into the boat thruster control system discussed above in order to provide a safety control device for a boat thruster control system that prevents the motor from being energized in case of the relay contacts being stuck or welded, thereby protecting the motor.

Regarding claim 24, Fadeley et al. discloses that said control means (20) comprises a joystick. See Fig. 4 and 4:50-57.

Regarding method claim 22, the recited method steps would necessarily be performed in the usage of the above-mentioned safety control device for a boat thruster control system.

Response to Arguments

3. Applicant's arguments with respect to claims 22-24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Denvir et al. (US 6,169,648) discloses a motor protection system in which a time delay applied to restarting the motor after a break protects against motor chatter and burnout. See abstract, 3:40-61 and 7:11-14.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 2836

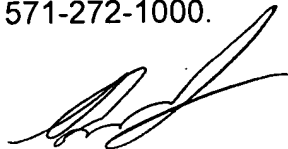
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ann T. Hoang, whose telephone number is 571-272-2724. The examiner can normally be reached on Mon-Thurs and every other Fri, 8 a.m. to 6 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus, can be reached at 571-272-2800 x36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ATH
4/12/07


BRIAN SIRCUS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2836